

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13

**Abstract**

A method of demagnetizing magnetic media for recording data in a data storage device, including the steps of placing the magnetic media in a magnetic field at a first strength level; and gradually reducing the magnetic field to a second strength level to essentially eliminate net magnetization in the magnetic media. Another embodiment includes the steps of determining a recording frequency for writing on the magnetic media with a transducer head, at which the amplitude of the transducer head readback signal from said portion of the magnetic media is essentially at noise level; and writing on the magnetic media at substantially said recording frequency, to substantially eliminate net magnetization in the magnetic media.